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PATENT
Our Docket: P-EA 5160

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:)
Glen A. Evans) Examiner: Not yet assigned
Serial No.: 10/052,582)
Filed: January 18, 2002) Group Art Unit: 1646
For: COMPUTER-DIRECTED ASSEMBLY) I hereby certify that this correspondence is being deposited with the
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By Astrid R. Spain)
Astrid R. Spain, Reg. No. 47,956
COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231
July 17, 2002
Date of Signature

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. § 1.97, enclosed are references relating to the above-identified application. For the convenience of the Examiner, these references are listed on the attached Form PTO-1449, and a copy of each is enclosed herewith.

It is respectfully requested that these references be considered in the examination of this application and that their consideration be made of written record in the application file.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-0370.

Respectfully submitted,

Date: July 17, 2002

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		APPLICANT: Glen A. Evans	
INFORMATIONAL DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: January 18, 2002	GROUP: 1646

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	4,652,639	3/24/87	Stabinsky	536	27	5/6/82
	5,198,346	3/30/93	Ladner et al.	435	69.1	7/26/90
	5,387,756	2/7/95	Burrell et al.	800	205	12/16/92
	5,922,927	7/13/99	Bujard et al.	800	25	7/21/97
	5,925,538	7/20/99	Perkins et al.	435	66	8/24/98
	5,968,799	10/19/99	Gelfand et al.	435	194	2/9/93
	5,981,601	11/9/99	Nagley et al.	514	690	3/20/95
	6,087,100	7/11/00	Meade et al.	435	6	10/8/97
	6,110,457	8/29/00	Belshe et al.	424	93.2	12/9/97

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
	EP 0 316 018	2/20/86	Europe			
	EP 0 385 410	2/27/90	Europe			
	WO9000626	1/25/90	PCT			
	WO9412632	6/9/94	PCT			

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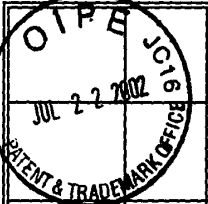
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

	Agarwal et al., "Synthesis, cloning and expression of a synthetic gene for high potential iron protein from <i>chromatium vinosum</i> ," <u>Biochem. Biophys. Res. Commun.</u> , 197(3):1357-1362 (1993).
	Ashman et al., "Chemical synthesis, expression and product assessment of a gene coding for biologically active human tumor necrosis factor alpha," <u>Protein Eng.</u> , 2(5):387-391 (1989).
	Bell et al., "Chemical synthesis cloning and expression in mammalian cells of a gene coding for human tissue-type plasminogenactivator" <u>Gene</u> , 63:155-163 (1988).
	Bergmann et al., "Chemical synthesis and expression of a gene coding for hirudin, the thrombin-specific inhibitor from the leech <i>hirudo medicinalis</i> ," <u>Biol. Chem. Hoppe. Seyler.</u> , 367(8):731-740 (1968).
	Biernat et al., "The construction and cloning of synthetic genes coding for artificial proteins and expression studies to obtain fusion proteins," <u>Protein Eng.</u> , 1(4):345-351 (1987).
	Calogero et al., "Chemical synthesis and in vivo hyperexpression of a modular gene coding for <i>Escherichia coli</i> translational initiation factor IF1," <u>Mol. Gen. Genet.</u> , 208:63-69 (1987).
	Ciccarelli et al., "Construction of synthetic genes using PCR after automated DNA synthesis of their entire top and bottom strands," <u>Nucleic Acids. Res.</u> , 19(21):6007-6013 (1991).
	Cravador et al., "Total DNA synthesis and cloning in <i>Escherichia coli</i> of a gene coding for the human growth hormone releasing factor," <u>Biochimie.</u> , 67:829-834 (1985).
Danilyuk et al., "Effective synthesis and cloning of the gene of human interleukin-2 gene and an analog of it: expression of the interleukin-2 gene in <i>E. coli</i> cells," <u>Bioorg. Chem.</u> , 17(6):446-454 (1991).	

EXAMINER	DATE CONSIDERED
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	Denèfle et al., "Chemical synthesis of a gene coding for human angiogenin, its expression in <i>Escherichia coli</i> and conversion of the product into its active form," <u>Gene</u> , 56:61-70 (1987).
	Dillon et al., "A rapid method for the construction of synthetic genes using the polymerase chain reaction," <u>Biotechniques</u> , 9(3):298-300 (1990).
	Dobrynin et al., "Chemical-enzymatic synthesis and cloning of DNA, coding the signal for secretion of proteins in gram-negative bacteria," <u>Bioorg. Chem.</u> , 15(9):684-690. (1989).
	Dobrynin, et al., "Synthesis of a model promoter for a gene expression in <i>Escherichia coli</i> ," <u>Nucleic Acids Symp. Ser.</u> , 7:365-376 (1980).
	Edge et al., "Total synthesis of a human leukocyte interferon gene," <u>Nature</u> , 292:756-762 (1981).
	Eidsness et al., "Expression of a synthetic gene coding for the amino acid sequence of <i>clostridium pasteurianum</i> rubredoxin," <u>Protein Eng.</u> , 5(4):367-371 (1992).
	Eren and Swenson, "Chemical synthesis and expression of a synthetic gene for the flavodoxin from <i>clostridium</i> MP," <u>J. Biol. Chem.</u> , 264(25):14874-14879 (1989).
	Farrow et al., "Synthesis of a gene for the protein kinase domain of the epidermal growth factor receptor and its expression in <i>Escherichia coli</i> ," <u>Eur. J. Biochem.</u> , 184:361-365 (1989).
	Ferretti, et al., "Total synthesis of a gene for bovine rhodopsin," <u>Proc. Natl. Acad. Sci. USA</u> , 83:599-603 (1986).
	Foguet and Lubbert "Precise and efficient construction of synthetic genes," <u>Biotechniques</u> , 13(5):674-675 (1992).

EXAMINER	DATE CONSIDERED
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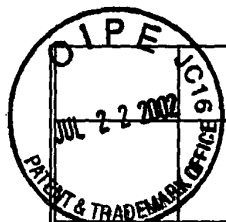
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RECEIVED



	Gearing et al., "Chemical synthesis of a mitochondrial gene designed for expression in the yeast nucleus," <u>Biochem. Int.</u> , 10(6):907-915 (1985).
	Gurevich et al., "Chemical-enzymatic synthesis of the translation-enhancer gene 10 of phage T7 and function of elements of its structure," <u>Bioorg. Chem.</u> , 17(5):371-376 (1991).
	Gurevich et al., "Construction of artificial genes by PCR methods using the synthetic template," <u>Bioorg. Khim.</u> , 23(6):492-496 (1997).
	Harada et al., "Total synthesis of a gene for octopus rhodopsin and its preliminary expression," <u>J. Biochem.</u> , 110:501-507 (1991).
	Henze et al., "Expression of the chemically synthesized coding region for the cytotoxin alpha-sarcin in <i>Escherichia coli</i> using a secretion cloning vector," <u>Eur J. Biochem.</u> , 192(1):127-131 (1990).
	Hostomský et al., "Solid-phase assembly of cow colostrum trypsin inhibitor gene," <u>Nucleic Acid Research</u> , 15(12):4849-4855 (1987).
	Ikehara et al., "Synthesis of a gene for human growth hormone and its expression in <i>Escherichia coli</i> ," <u>Proc. Natl. Acad. Sci. USA</u> , 81(19):5956-5960 (1984).
	Inaoka et al., "Chemical synthesis of the T4 endonucleases V gene and its expression in <i>Escherichia coli</i> ," <u>Nucleic Acids Symp. Ser.</u> , 17:105-108 (1986).
	Kaji et al., "Studies on chemical synthesis of human cystatin a gene and its expression in <i>Escherichia coli</i> ," <u>J. Biochem (Tokyo)</u> , 105(1):143-147 (1989).
	Kálmán et al., "Synthesis of a gene for human serum albumin and its expression in <i>saccharomyces cerevisiae</i> ," <u>Nucleic Acids Res.</u> , 18(20):6075-6081 (1990).

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	Kaltenboek and Kousoulas "Efficient PCR production of a single-stranded DNA sequencing templates," <u>Methods Mol. Biol.</u> , 65:149-153 (1996).
	Kash'yap et al., "Chemical-enzymatic synthesis and cloning in <i>Escherichia coli</i> of the gene coding human granulocyte-colony-stimulating factor," <u>Bioorg. Chem.</u> , 18(1):18-22 (1992).
	Katunuma et al., "Total synthesis of the cystatin alpha gene and its expression in <i>E. coli</i> ," <u>FEBS Lett.</u> , 238(1):116-118 (1988).
	Kim et al., "Chemical synthesis and cloning of human beta-endorphin gene in <i>Escherichia coli</i> ," <u>Appl. Biochem Biotechnol.</u> , 50(1):35-43 (1995).
	Lashkari et al., "An automated multiplex oligonucleotide synthesizer: development of high throughput, low-cost DNA synthesis" <u>Proc. Natl. Acad. Sci. USA</u> , 92(17):7912-7915 (1995).
	Lebedenko et al., "Synthesis and modification of genes through artificial splicing by directed ligation (ASDL)," <u>Nucleic Acids Symp. Ser.</u> , 24:215-216 (1991).
	Lebedenko et al., "Method of artificial DNA splicing by directed ligation (SDL)," <u>Nucleic Acids. Res.</u> , 19(24):6757-6761 (1991).
	Modesti, et al., "Chemical synthesis and expression of a gene coding for human muscle acylphosphatase," <u>Biochim. Biophys. Acta.</u> , 1216(3):369-374 (1993).
	Nagase et al. "Chemical synthesis of a human fibroblast interferon gene and its expression in <i>Escherichia coli</i> ," <u>Nucleic Acids Symp. Ser.</u> , 12:83-86 (1983).
	Prodromou and Pearl, "Recursive PCR: a novel technique for total gene synthesis," <u>Protein Eng.</u> , 5(8):827-829 (1992).

EXAMINER	DATE CONSIDERED
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JUL 23 2002

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	Rayner et al., "MerMade: an oligodeoxyribonucleotide synthesizer for high throughput oligonucleotide production in dual 96-well plates" <u>Genome Research</u> , 8(7):741-747 (1998).
	Roberts et al., "Chemical synthesis and expression of a calmodulin gene designed for site-specific mutagenesis," <u>Biochemistry</u> , 24(19):5090-5098 (1985).
	Rosenthal et al. "Chemical-enzymatic synthesis, cloning and expression of a synthetic gene coding for an env protein fragment of the human T-cell leukemia virus type 1," <u>Nucleic Acids Symp. Ser.</u> , 18:233-236 (1987).
	Sandhu et al., "Dual asymmetric PCR: one-step construction of synthetic genes," <u>Biotechniques</u> , 12(1):14-16 (1992).
	Sindelar and Jaklevic, "High-throughput DNA synthesis in a multichannel format" <u>Nucleic Acid Res.</u> , 23(6):982-987 (1995).
	Strauss et al., "Chemical synthesis of a gene for human stefin A and its expression in <i>E. coli</i> ," <u>Biol. Chem. Hoppe Seyler</u> , 369(9):1019-1030 (1988).
	Strauss et al., "Chemical synthesis of a gene for human cystatin C and its expression in <i>E. coli</i> ," <u>Biol. Chem. Hoppe Seyler</u> , 369:209-218 (1988).
	Sulo and Martin, "Isolation and characterization of <i>LIP5</i> ," <u>J. Biol. Chem.</u> , 268(23):17634-17639 (1993).
	Suwen et al., "Chemical synthesis and cloning of secretin gene," <u>Sci. Sin. [B]</u> , 31(6):687-694 (1988).
	Tanaka et al., "Expression in <i>Escherichia coli</i> of chemically synthesized gene for a human immune interferon," <u>Nucleic Acids Symp. Ser.</u> , 11:29-32 (1982).

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	Thompson and Weber, "Construction and expression of a synthetic streptavidin-encoding gene in <i>Escherichia coli</i> ," <u>Gene</u> , 136(1-2):243-246 (1993).
	Wosnick et al., "Total chemical synthesis and expression in <i>Escherichia coli</i> of a maize glutathione-transferase (GTS) gene," <u>Gene</u> , 76:153-160 (1989).

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